

Environmental Assessment

AEC McCovey Exploration Plan

Beaufort Sea OCS-Y-1577

Prepared by

Office of the Regional Supervisor
Leasing and Environment
Alaska OCS Region

February 2002

MMS U.S. Department of the Interior
Minerals Management Service

I. PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

This Environmental Assessment (EA) examines the probable effects of an Exploration Plan (EP) for the McCovey Prospect. The EP, dated January 2002, is from AEC Oil & Gas (USA) Inc, the new designated operator on Lease OCS-Y-1577. The MMS reviewed a previous EP during October 2000 from Phillips Alaska Inc. (PAI) for the McCovey Prospect (USDOL, MMS, 2000). The MMS prepared an EA on this 2000 EP. The current EA references the 2000 McCovey EA and another NEPA document that MMS completed recently—the Liberty Draft Environmental Impact Statement (DEIS) on a proposed development in nearby Foggy Island Bay (USDOL, MMS, 2001).

II. THE PROPOSAL AND ALTERNATIVE

A. Description of the Proposal

The AEC would explore the prospect with the Steel Drilling Caisson and attached mat, formerly known as the Single Steel Drilling Caisson (SSDC or SDC) and now called the Mobile Offshore Drilling Unit (MODU). The unit has been used at several Alaskan drill sites, including the Phoenix, Aurora, Fireweed and Cabot. The current McCovey EP includes several lease-specific operations:

- Towing the MODU onto the lease and de-ballasting it to the seafloor during August 2002
- Re-supplying and fueling the MODU with barges before August 20, 2002
- Driving the well casing a couple hundred feet into the seafloor during late August
- Leaving the MODU on “cold standby” during the autumn bowhead whale migration
- Drilling a well and possible sidetracks before Mid-March 2003; drill mud and cuttings would be discharged onto the ice cover and any recovered fluids would be stored in MODU tanks
- Leaving the MODU onsite during Winter 2003 while well data would be analyzed
- Demobilizing the MODU unless test results are favorable

The whole operation is described in greater detail in the EP and an application to the National Marine Fisheries Service (NMFS) for an Incidental Harassment Authorization (IHA) (EP Appendix I).

B. Need for the Proposal

The EP would help to evaluate the oil and gas potential of leases on the Outer Continental Shelf (OCS). The proposed action is consistent with the overall purpose of the OCS Lands Act Amendments to insure that the extent of oil and natural gas resources of the OCS is assessed at the earliest practicable time. There has been exploration on the nearby Cross, Reindeer and No Name Islands (Fig. 1).

C. Alternatives to the Proposal

Alternatives to the proposal would be (1) exploration of the McCovey Prospect with an ice island, as proposed by PAI in 2000, (2) exploration of the McCovey Prospect with a gravel island, and (3) No Action. The effects of these alternatives are assessed in EA Section VI and EP Appendix F, Section 5.0.

III. DESCRIPTION OF THE ENVIRONMENT

The environment is described in the EP Environmental Report (ER) (EP Appendix F, Section 3.0). The section notes that “substantial scientific data is available . . . to describe the existing environment and to assess any potential impacts. . . .” (EP Appendix F, p. 1-1). The EA No. AK 00-01 on the previous McCovey EP also notes “there is substantial environmental and sociocultural information for the McCovey area” (USDOI, MMS, 2000:Sec. III). A third source of information is the recently completed Liberty DEIS. The extensive DEIS description covers the biological and social environment of the region, including Threatened and Endangered Species, Seals and Polar Bears, Marine and Coastal Birds, Lower Trophic-level Organisms, Fish, Subsistence-harvest Patterns, and Archaeological Resources (USDOI, MMS, 2001: Sec. VI).

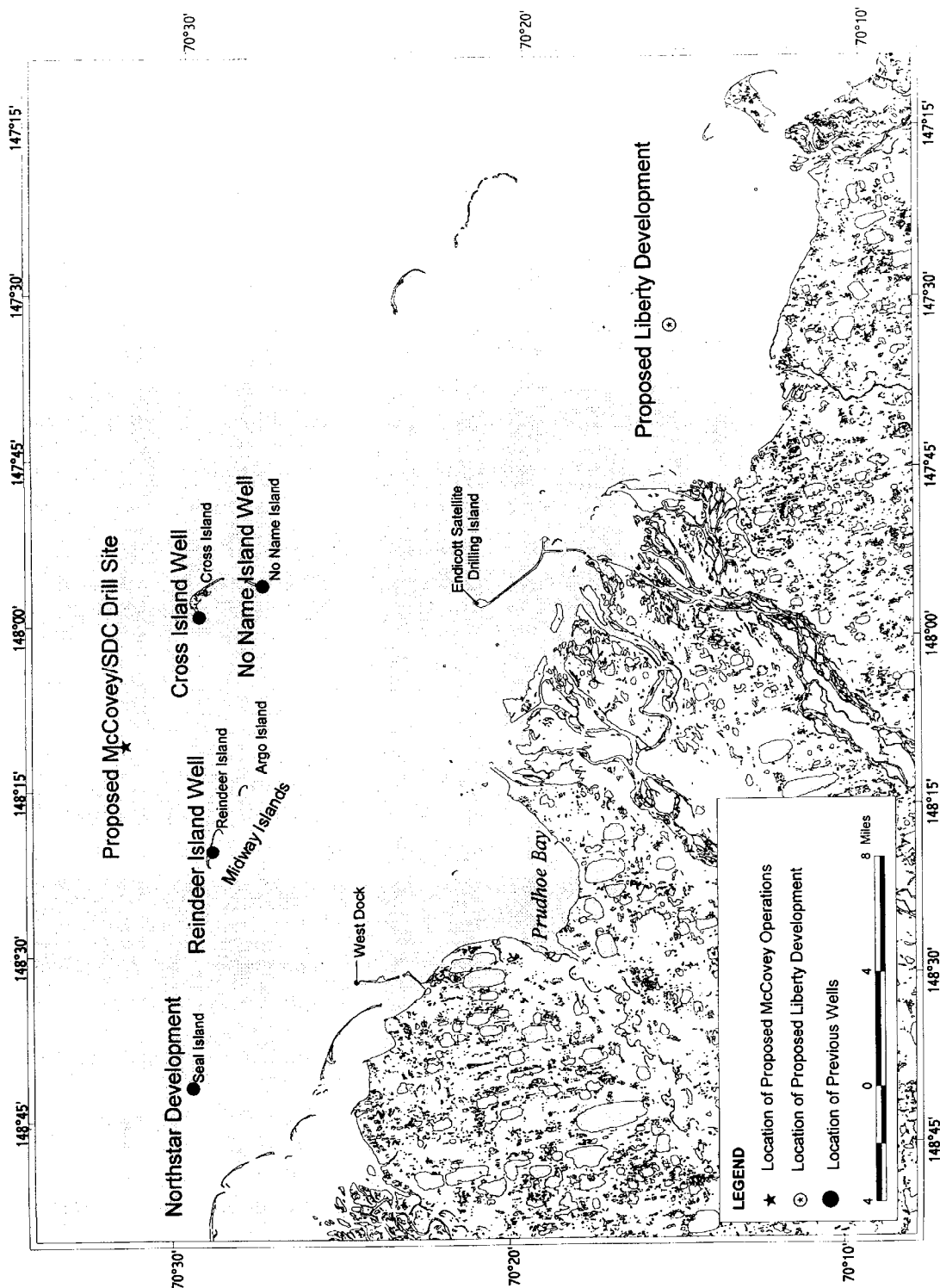


Figure 1

The environmental descriptions in these documents are incorporated by reference.

The EP explains that the water depth at the McCovey site is about 35' and the seafloor is covered with fine-grained sediments (EP Appendix A, Figs. 3, 4, and 5). The most abundant benthic animals are mollusks, polychaete worms, and amphipods. Seafloor surveys found no evidence of boulders, cobbles, kelp, or notable biological communities (EP Section 3.6.4). The benthic-survey report concludes that the "site does not appear to constitute an important habitat for either infaunal or epibenthic invertebrates or fishes during winter season." (EP Appendix A, p. 8).

An additional source of information is the MMS report on the 1998 and 1999 Bowhead Whale Aerial Survey Program (BWASP) (Treacy, 2000). This report, and reports on a few aerial surveys during August over the past two decades of monitoring, have shown that bowheads have been sighted only occasionally in the central Alaskan Beaufort Sea during August.

Lastly, EP Appendix I and ER Section 3.7 explain that Cross Island, the base for Nuiqsut subsistence whaling, is 5.3 miles southeast of the McCovey site (Fig. 1). The main subsistence whaling area has been approximately 6 miles east and northeast of the McCovey site and further to the east and northeast. (Fig. 2).

The MMS prepared an EA on October 19, 2000 for proposed exploration activities at this same site by Phillips Alaska, Inc. That EA is hereby incorporated by reference.

IV. ENVIRONMENTAL EFFECTS

The environmental consequences of the proposed operations are assessed in ER Section 4.0 and AEC's compliance with MMS lease stipulations is discussed in ER Section 12. The section notes polar bears are not likely to be affected because there would be no ice island, ice road, or operations on the ice cover, and that the MODU deck is about 100' above the waterline.

However, polar bears would be affected if people must be on the ice cover for oil-spill responses or another emergency; partly for this reason, AEC has prepared a Polar Bear Awareness and

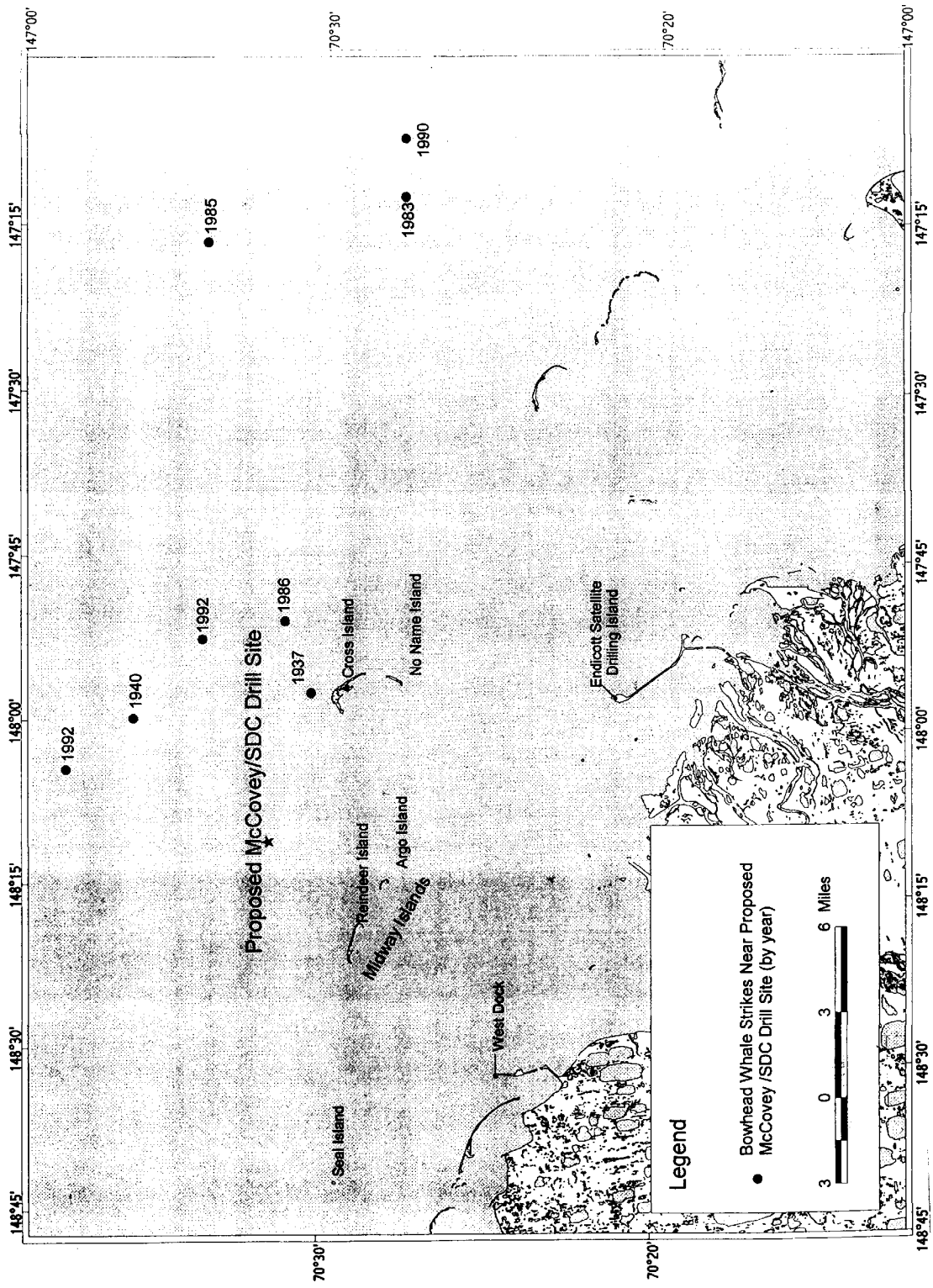


Figure 2

Interaction Plan for the US Fish and Wildlife Service (USFWS) (EP Appendix I). The section also notes that the benthic footprint of the MODU, which would be 531 by 360 feet, would be in the same location as the PAI proposed ice island, and would be negligible (EP p. 2-1, EP Appendices A, F p. 4-3, and I p. 7). After completion of an ROV seafloor survey of the drill site, the interagency Biological Task Force (BTF) reviewed the video or information from the ROV report. The BTF representatives, including those from NMFS, US Fish and Wildlife Service, North Slope Borough and State of Alaska, recently expressed no reservations about probable effects of the MODU on the benthic habitat. We agree with the conclusion of these BTF representatives.

The section on air-quality impacts (EP Appendix F, Sec 4.3.2) concludes that the drilling program “is not expected to cause an exceedance of the National or State of Alaska ambient air quality standards (AAQS).” The section on air quality (EP Appendix F, p. 3-5) notes that the Northstar operations would be the only other far-offshore industrial activity in this region, and that the proposed McCovey air emissions would be below the maximum allowed by National Ambient Air Quality Standards. The section notes on page 4-5 that the drilling muds to be used, and the proposed discharge rates of muds and cuttings onto the ice cover, were approved for the PAI McCovey well under a general NPDES permit. The section also notes that the offshore water quality is generally good; that known trace metals and hydrocarbons are introduced by river runoff and natural seeps; and that the operations are expected to “have minimal effect on marine water quality” (p. 3-5). We agree with EP conclusions about effects on water and air quality. EP activities must meet EPA air and water quality regulations.

The section notes that the MODU would be at the same site as the PAI proposed ice island and concludes that “Direct environmental impacts resulting from exploration activity at the AEC McCovey Prospect include short-term air emissions, exploration activity, drilling discharges to the ice under the Arctic Offshore General NPDES permit, noise related to drilling and limited site-survey activities” (ER p. 4-4). The site-survey activities would be the surveys for stipulations on protection of benthic populations and archaeological resources, but no seismic

exploration is proposed. The EP Appendix F, Section 6.0 lists several mitigation measures to minimize the potential adverse effects. The measures include exploration of the McCovey prospect during winter without an ice road, a gravel island, or other permanent facility.

The EP includes a third-party analysis of the archaeological resources at the drill site that MMS required in accordance with the special stipulation for Protection of Archaeological Resources (EP Appendix G). The report and EP note that, while there are cabins and old house depressions on Cross Island, there is no evidence of shipwrecks or other historic remains at the drill site (EP Section 12.1). The EP also explains that the skirt of the MODU would penetrate about a meter into the seafloor but that the skirt would not affect archaeological resources (EP Appendix C Sec. 2.2 and Appendix G). Further, an ROV survey of the drill site for special biological communities detected no historic or prehistoric remains. We agree with the conclusion of the EP that there would be no impact to historic or prehistoric cultural resources from the McCovey exploration plan.

The EP notes that the blowout risk is extremely low because the drilling program would be based on data from other exploratory wells in area, including the SOHIO Reindeer Island Wells, AMOCO No Name Island Well and Gulf Oil Cross Island #1 Well. The drilling program will meet the requirements of MMS regulations 30CFR Part 250. There would be no drilling into the target layers that are potentially hydrocarbon-bearing until after the autumn bowhead migration and formation of a solid-ice cover when clean up of any spill would be easier. MMS funded an investigation of offshore and onshore Alaska North Slope spill occurrence for the Liberty DEIS by Hart Crowser Inc. (2000). As explained in the Liberty DEIS Section III.C.1.d (3) (b), the offshore (Endicott) and onshore geologic characteristics are the same so the offshore drilling procedures would be the same. Thus, drilling and spill data from onshore North Slope provide insights. A spill database for the North Slope from 1968-2000 was compiled by Hart Crowser Inc. and MMS, using as many sources of information as were made available. We believe the database is most complete for the years after 1985 and for spills greater than or equal to 500 barrels. The compiled database has no crude oil spills on the North Slope resulting from well

blowouts and no facility spills greater than 1,000 barrels for the years 1985-1998.

Since completion of the previous McCovey EA No. AK 00-01, a review of spill occurrence by Anderson and LaBelle (2000) has become available. Their data is from operations in U.S. OCS waters, including platform spills, pipeline spills and spills of petroleum from barges in US waters. The barge data is relevant to the McCovey EP because a Canadian fuel barge would transfer a year's supply of diesel to the MODU (estimated as a 10,000-barrel transfer, judging by the data in EP Section 2.2 and Appendix K). The review concluded that the rate for petroleum spills (including crude oil) from barges during the last 15 years (1985-1999) was 0.23 spills per billion bbl transported.

The EA No. AK 00-01 on the previous McCovey EP (USDOJ, MMS, 2000) concluded “. . . that the proposed operations would not significantly (40 CFR 1508.27) affect the quality of the human environment. . . .” We agree with this conclusion with regard to the proposed AEC operations during the ice-covered season. However, the AEC proposal includes some open-water operations, the effects of which on bowhead whales and subsistence whaling are discussed further in the following two sections and Section IV.C on cumulative effects.

A. Effects on Bowhead Whales

The AEC application to the NMFS for an IHA concludes that “AEC does not anticipate that its planned activities (movement to location, fueling, and re-supply of the [MODU]) will have a greater than negligible impact on the whales from noise generated by vessel movements in the area” (EP Appendix I, p. 6). The effect on bowheads of operations off the leasehold, such as MODU mobilization through the Chukchi Sea, are being assessed by NMFS during review of the AEC application for an IHA. However, the following is some additional information about the effects of disturbance and spills due to operations on the leasehold.

As noted above, the MODU has been used at the Phoenix, Aurora, Fireweed and Cabot drill sites. We are aware of no measurable effects of MODU mobilization to these drill sites. When

the MODU is mobilized to the McCovey drill site, an additional source of noise would be driving the 30" conductor casing. The casing would be hammered about 200-300 feet into the ground over 3-4 days in late August, according to information that AEC distributed during a Pre-Application Meeting with MMS, NMFS, and several other agencies on November 14, 2001 (EA Appendix 1). One of the noisiest operations during Northstar construction occurred while sheet piles were driven into the island soil using a vibrohammer (Shepard et al., 2001), but the noise was apparently not as loud as that generated by seismic guns (C. Greene, Jr., personal communication, February 2002). Noise from hammering the casing within the MODU probably would be similar—not as loud as seismic noise. A recent report on the effects of seismic exploration near Northstar and McCovey units concluded that most migrating bowheads would avoid an area with a radius about 20-30 km (12-19 mi.) around a seismic vessel operating in nearshore waters (Richardson, 1999). As explained in Section III, the BWASP surveys have shown that very few bowheads usually would be present in the central Beaufort Sea during late August. Marine mammal observers, who would be on the MODU before and during this operation (EP Appendix I, p. 9), could provide warning about the presence of bowheads. Further, the EP explains that AEC will coordinate with the MMS BWASP monitoring of whales which usually starts surveys at this time of year (EP Appendix I, p. 10).

After September 1, the MODU would be left onsite in a "quiet mode" or cold stack with no human activity or operating generators. The proposed cold stack differs from the "warm stack" condition of the MODU during previous operations in the migration corridor. North Slope residents have expressed concern about the noise from the SDC in warm stack. For example, the effects of the platform at the Aurora Prospect near Kaktovik in 1987 were described by Mr. Joseph Kaleak during the 1995 Arctic Synthesis Meeting (USDOI, MMS, 1995). He said that during the year of operation *no whales were landed. That was due to the fact that there was a drill ship located about 18 miles east and ten miles offshore of Barter Island. So it was a bad year because of that ship* (p. 69, USDOI, MMS, 1995). Concerns were expressed also by Mr. Jacob Adams, Mr. Burton Rexford, Mr. Fred Kanayurak, and Mr. Van Edwardson in a written statement at the Arctic Seismic Synthesis and Mitigating Measures Workshop on March 5-6,

1997, in Barrow, Alaska (USDOJ, MMS, 1997): *We are firmly convinced that noise from the Cabot drilling platform displaced whales from our traditional hunting area.* During the workshop there was extensive discussion about scientific and traditional knowledge of the distances to which bowheads are affected by offshore operations.

The difference between warm stack and cold stack conditions is explained also in the AEC application to NMFS for an IHA (EP Appendix I, p. 4). It explains that when the “. . . re-supply operations are completed (approximately 6 to 10 days) the rig will go into a cold stack mode whereby it will be temporarily unmanned (“go quiet”) with no personnel on board and no sound producing machinery or generators operating. This mode is different from past uses of the SDC where, during the period after set-down and before the start of drilling activities, the SDC remained in “warm stack” mode during which camp generators were operated and personnel remained onboard.”

The NMFS recently updated the Arctic Region Biological Opinion (US Department of Commerce [USDOC], NMFS, 2001). The opinion, which includes the effects of drilling on moveable bottom founded platforms like the MODU, concludes that exploration in the Beaufort Sea is not likely to jeopardize the continued existence of the species.

The effects of unplanned (accidental) open-water spills are discussed further below in the cumulative effects section, but we agree with the conclusions of the NMFS Arctic Region Biological Opinion (USDOC, NMFS, 2000) that exploration drilling is not likely to jeopardize the continue existence of the species, and the conclusion of the AEC EP that “AEC does not anticipate that its planned activities (movement to location, fueling, and re-supply of the [MODU]) will have a greater than negligible impact on the whales from noise generated by vessel movements in the area.” Further, marine mammal observers, who would be on the MODU when five barges resupply the MODU and the casing would be driven, could provide warning about the presence of bowheads.

The previous EA No. AK 00-01 on McCovey did not assess the effects of disturbance on bowheads, because all of the operations would have been during the solid-ice season when the whales would have been out of the Beaufort Sea, but it did assess the effects of spills from blowouts. It concluded that bowhead whales would probably not be affected by on-ice spills or the proposed spill responses. We still agree with that conclusion and believe it applies equally well to the proposed drilling by AEC. However, the effects of an open-water spill during the proposed fuel transfer are assessed further in the Section IV.C on cumulative effects.

B. Effects on Marine and Coastal Birds

The FWS concluded in their biological opinions for leasing and exploration that the Beaufort Sea Oil and Gas Lease Sale 144 and 170 associated activities, as proposed, are not likely to jeopardize the continued existence of the spectacled and Steller's eider.

As described in Section III B of the previous McCovey EA, the earliest sightings of waterfowl along ice leads in the Western and Central Beaufort Sea during early and mid-May, respectively.

The sightings indicate that the waterfowl would begin migrating along the leads near the McCovey Prospect only after the scheduled termination of operations in mid-May.

C. Effects on Fish and Essential Fish Habitat

The previous McCovey ER concludes that effects on fish would be temporary and non-lethal (ER 4-3). The MMS agrees with the conclusion for several reasons. Moving the MODU to the location would displace only a few fish. Second, drilling muds might cause a temporary increase in water turbidity and toxicity during spring breakup; however, it is unlikely that such discharges affect fish because of the rapid dilution of muds in general (USDOI, MMS, 1998: p. IV-B-12).

The USDOI, MMS report also concluded that spills and spill responses would affect fish minimally because the fish could avoid effects by moving. Fourth, salmon and their prey

probably would not occur in the project area during the winter, as described in Section III.C. In summary, the MMS expects a very low level of effects on fish and essential fish habitat.

D. Effects on Subsistence

Subsistence resources and activities could be affected by disturbance and spills. The disturbance effects would include the deballasting of the MODU on the lease. The deballasting would occur before the bowhead whale migration and subsistence-whaling season, so noise and disturbance from those operations would not affect the primary subsistence activities at Cross Island. Two other aspects of the AEC EP—the proposed Conflict Avoidance Agreement (CAA) with the subsistence whalers and the Cultural Orientation Program—would help to reduce effects on subsistence. The draft CAA indicates that AEC would coordinate closely with the subsistence whalers during any operations between August 15 and September 1. The Cultural Orientation Program (EP Appendix H) would be shown to all AEC personnel involved in exploration activities (including personnel of the lessee’s agents, contractors, and subcontractors). The AEC has requested permission to use a formerly approved Orientation Program. The agency has reviewed the program and prepared comments that help to update it and relate it to this specific operation near the Cross Island subsistence whaling area.

As explained in Section IV.A above, the MODU would be in a quiet mode during the initial part of the bowhead migration—and the subsistence whaling season—so there would be no disturbance of the primary subsistence activities on Cross Island. In summary, we agree with the EP conclusion (EP Appendix F, Sec. 4.5.6) that, because of the CAA, Orientation Program, and quiet mode of operation during the subsistence-whaling season, the McCovey project will not disturb subsistence bowhead whaling activities. The AEC operations during the season might be modified further by NMFS during review of the AEC IHA application, which also assesses subsistence effects (EP Appendix I, p. 7).

Further, subsistence resources could be affected by accidental oil spills, as discussed in the ER (EP Appendix F, Sec. 4.8). The section explains that “the probability of a spill from winter exploration activity is very low and advanced well control equipment and procedures will be used for the AEC McCovey project.” The section also explains that “AEC will separate any contaminated ice that results from normal operations in a snow melter and fluid will be injected in a permitted Class I or Class II injection well.” Section 6.0 explains further that AEC will “provide full-time, on-site environmental presence in the form of (an) Alaska Clean Seas technician during drilling activities to ensure compliance with permit requirements.” An Oil Discharge Prevention and Contingency Plan (ODPCP) is part of the McCovey EP. We agree with the AEC conclusion that the probability of a blowout is very low and that the ODPCP is appropriate for the winter drilling plan. The possible effects on subsistence resources of an open-water spill during open-water re-fueling of the MODU are discussed further immediately below in Section IV.E on cumulative effects.

E. Cumulative Effects

The McCovey operations would add to the cumulative effects of concurrent OCS activities, as well as the past and reasonably foreseeable ones. Other offshore operations during 2002-03 include those at Northstar, Endicott, and any winter seismic exploration. Northstar construction was completed during autumn 2001, but an ice road would be constructed from West Dock to Northstar (EA Fig. 1) during winter 2002-03 when there would be activity (but no ice road) at McCovey. The construction of the isolated ice road west of the McCovey operation would probably not lead to cumulative disturbance effects. With regard to seismic exploration, the agency has received applications for winter activity near Northstar and McCovey during the past few years. However, no seismic companies were active on the Beaufort Sea OCS during the winter of 2001-02, and we do not expect an application for the winter of 2002-03 or until a subsequent lease sale.

The ER in the McCovey EP concludes that “no significant cumulative impacts are expected from exploration activity . . .” (EP Appendix F, Sec. 4.7.3). The cumulative assessment in the first McCovey EA No. AK 00-01 concluded similarly the “MMS expects the overall cumulative effects to be negligible unless an extremely unlikely, large, offshore, oil spill occurs.” The MMS based that EA cumulative assessment partly on the cumulative assessment in the Northstar EIS which concluded that large offshore oil spills could cause significant impacts to subsistence activities (US Army Corps of Engineers, 1999:10-39).

Since completion of the cumulative assessment for the Northstar EIS and the first McCovey EA, MMS prepared a detailed cumulative assessment for the proposed Liberty Development Project (USDOI, MMS, 2001). The Liberty cumulative assessment included the effects of all reasonably foreseeable activities over the 20-year life of the proposed Liberty field, including any winter exploratory operations (USDOI, MMS, 2001:Sec.V.B and C.3.a). The cumulative assessment concluded that, in the unlikely event of a large spill, significant effects could occur on subsistence-harvest patterns (USDOI, MMS, 2001:p. V-42). The detailed assessment in the DEIS explains that the conclusion of significance is based primarily on the likelihood of a large (e.g., 3,000 barrel) offshore spill occurring and affecting two subsistence resources, bowheads and waterfowl, over the life of the field. The analysis concluded that the incremental contribution of the Liberty Project to cumulative effects is likely to be quite small. In contrast to the long-term Liberty development proposal, the AEC proposed operations at McCovey would last less than one year and would have an even smaller incremental effect.

Several other aspects of the McCovey EP would greatly reduce the chance of an open-water or broken-ice spill:

- The McCovey deep drilling would be conducted when there is a solid-ice cover.
- The McCovey drilling would be concluded 3 months before the end of the solid-ice season.

- The McCovey ODPCP includes several tactics for responding to spills on the ice cover.
- Tugs would remain in attendance of all barges during loadout of the MODU, including the refueling operations.

Still, the proposed McCovey operation would add a small increment to the chance of an open-water spill near subsistence resources. Very little of this small increment would be due to winter drilling, which could spill crude oil on the ice cover but probably not in the water. The proposed transfer of approximately 10,000 barrels of diesel fuel from a barge to the MODU could present the possibility of an open-water spill. The transfer would occur during late August at the drill site, which is within the bowhead migration corridor and near a subsistence whaling area. Spilled diesel fuel would probably evaporate from the water column within a week—before the main bowhead migration in mid-September—but traces might remain longer in the shallow sediments around the adjacent islands.

Possible Mitigation: The MODU could be refueled before it is brought to the McCovey lease site. However, if it is refueled on the leasehold, the diesel could be transferred as it is at Northstar Island. Northstar is a few miles west of the McCovey drill site (Fig. 1) and also in the bowhead whale migration corridor. When fuel is transferred from a barge to Northstar, the transfer procedure includes a precaution. At Northstar Island, pre-transfer booming of fuel barges (33 CFR 154.545) is used. The Northstar contingency plan explains that barges are “surrounded by an oil spill containment boom during the entire transfer operation” (EA Appendix 2), and that the entire fuel transfer operation is closely monitored so it could be terminated if, for example, wave and wind conditions exceeded boom specifications. In contrast, the McCovey ODPCP Section 2.1.7 explains that procedures for fuel transfers from a Northern Transportation Company Limited (NTCL) barge are covered by the NTCL’s C-Plan Section 17 (DEC Approval #012-CP-3116) but does not refer to pre-transfer booming.

In summary, the small incremental addition of McCovey to cumulative risk of spills on subsistence resources would be moderated if AEC refuels the MODU offsite. If the MODU is

refueled on the leasehold, the small risk would be moderated by use of pre-transfer booming procedures similar to those at Northstar.

V. ENVIRONMENTAL JUSTICE

Alaska Inupiat Natives, a recognized minority, are the predominant residents of the North Slope Borough, the area potentially affected by the proposed McCovey operations. Effects on Inupiat Natives could occur because of their reliance on subsistence foods, and because McCovey exploration may affect subsistence resources and harvest practices. The Inupiat communities of Nuiqsut in particular may experience effects. In the unlikely event that a large oil spill occurred and contaminated Cross Island, major effects could occur when impacts from contamination of the shoreline, cleanup disturbance, tainting concerns, and disruption of subsistence practices are factored together. However, effects are not expected from routine activities and operations. The likelihood of a large blowout occurring and persisting into the open-water season is extremely low. So, disproportionately high adverse effects would not be expected on Alaskan Natives from the McCovey proposal. Any potential effects on subsistence resources and subsistence harvests could be mitigated substantially, though not eliminated. The AEC developed mitigation of disturbance due to the proposed McCovey operations, as described in the EP, through discussions with local, Borough, and agency representatives. The draft Conflict Avoidance Agreement between AEC and Inupiat whalers would be an important mechanism for overcoming conflicts. AEC has committed to dialogue with Native whalers and, if and when the project is approved, existing mitigation requires AEC to continue coordinating with them about the project.

VI. EFFECTS OF AN ALTERNATIVE

Alternative 1, would be exploration of the McCovey Prospect with an ice island, as PAI proposed during September 2000 and as AEC proposes for an emergency relief well in case of loss or damage to the MODU (EP Sec. 4.1). The effects of an ice island were assessed in EA No. AK

00-01 (USDOI, MMS, 2000). The main effects would have been slightly different than the effects of the current proposal. Even though the ice-island would have been in exactly the same location as the MODU, there would have been no platform mobilization during the summer, and the drilling would have continued later in the spring. Because of the spring drilling, the State of Alaska proposed a special restriction on the ice-island EP in a draft consistency determination, dated April 23, 2001. It concluded that the operation would be consistent only "if rigorous ice monitoring is conducted and, if necessary, drilling operations are suspended if ice conditions deteriorate to preclude effective well control and winter response actions." With such a restriction, the effects of the ice-island alternative also would not significantly affect the quality of the human environment.

Alternative 2, would be exploration of the McCovey Prospect with a gravel island. The effects of gravel island construction were assessed in the Northstar FEIS (US Army Corps of Engineers, 1999) and the Liberty DEIS (USDOI, MMS, 2001). Neither assessment concluded that gravel-island construction would have significant effects.

Alternative 3, No action alternative – would be disapproval of the proposal. There would be no environmental effects at the McCovey Prospect. However, information would not be gained to help determine the extent of OCS oil and natural gas resources at the earliest practicable time.

In summary, Alternatives 2 for use of a gravel island probably would have a slightly higher level of effect than an ice island (Alternative 1) or the MODU (Proposal) because of the additional on-ice activity and gravel mining.

VII. CONSULTATION AND COORDINATION

The EP summarizes the meetings with the AEWC, other Native organizations, and regulatory agencies (one of the five parts of EP Appendix I). The list shows that meetings with the NSB, AEWC, and affected subsistence communities started during October 2001. The summaries of

the meetings show that the communities and AEC discussed potential conflicts, and provide MMS with sufficient notification of the concerns expressed by subsistence hunters.

Further, the EP was discussed with several Federal and State agencies during a Pre-Application Meeting on November 14, 2001. The list of participants in the meeting is shown in EA Appendix 1. Also, AEC distributed draft copies of the EP during December 2001 before they formally submitted a final EP to MMS. Once MMS deemed the EP complete, the agency distributed about 75 copies or letters to the public and other agencies (EA Appendix 1).

Eight response letters and a memorandum were received; the following are the authors and dates of the letters: (1) Mr. Bill Tegoseak, Executive Director of the Inupiat Community of the Arctic Slope (ICAS), dated February 12, 2002; (2) Mr. Bill Tegoseak, Executive Director of ICAS, (received February 21, 2002); (3) Mr. Charles Edwardsen and Ms. Nancy Wainwright, dated February 20, 2002; (4) Mr. Bill Tegoseak, Executive Director of ICAS; dated February 25, 2002, enclosing two resolutions from the Tribal Governments of the Native Village of Nuiqsut and the Wainwright Traditional Council, and enclosing two comments from Mr. Raymond Aguvluk, dated February 19, 2002, and Mr. Joseph K. Akpik, dated February 15, 2002; (5) Ms. Jenna App, Trustees for Alaska on behalf of the Sierra Club-Alaska Field Office, Greenpeace and Northern Alaska Environmental Center, dated February 25, 2002; (6) Ms. Pamela Bergmann, USDO Regional Environmental Officer – Alaska, memorandum dated February 25, 2002; (7) Mr. Glenn Gray, Office of the Governor, State of Alaska, dated February 25, 2002; and (8) Mr. Bill Tegoseak, Executive Director of ICAS.

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Appendix 1. Coordination with Federal, State, and local agencies and the public

This appendix includes four sections that illustrate consultation and coordination. One contains copies of several MMS letters that provided advance notice of the McCovey EP to tribal leaders and mayors in North Slope villages. Aside from these letters, Mr. Jeff Walker and Mr. Mark Allred discussed the EP at a Board Meeting of the Inupiat Community of the North Slope (ICAS) and discussed it with Mr. Bill Tegoseak at the ICAS office on February 2, 2002; Mr. Jeff Walker, Mr. Mark Allred, and a representative of AEC discussed the EP on February 7, 2002, with the Native Village of Barrow, the Native Village of Point Hope, the Native Village of Nuiqsut, Tribal Council of Wainwright, and Native Village of Kaktovik.

Another contains a list of the attendees at an AEC McCovey Pre-application Meeting on November 14, 2001, including representatives for the following Federal and State agencies:

Federal agencies

- US Department of the Interior, MMS and USFWS
- USDOC, NMFS
- Environmental Protection Agency (EPA)

State agencies

- Department of Environmental Conservation (DEC)
- Department of Natural Resources (DNR)
- Division of Governmental Coordination (DGC)

A third section contains the AEC distribution list, dated December 2001, for copies of the draft Oil Discharge Prevention and Contingency Plan. The list shows that AEC consulted and coordinated further with the US Fish and Wildlife Service, NMFS, US Environmental Protection Agency, US Army Corp of Engineers, Alaska Department of Environment Conservation, Alaska Department of Natural Resources, Alaska Division of Government Coordination, Alaska Division of Fish & Game, North Slope Borough, Native Village of Nuiqsut, City of Nuiqsut/Mayor's Office, and the City Council of Nuiqsut.

The fourth section contains the MMS distribution list for copies of the AEC McCovey EP.



United States Department of the Interior

MINERALS MANAGEMENT SERVICE
Alaska Outer Continental Shelf Region
949 East 36th Avenue, Suite 308
Anchorage, Alaska 99508-4363

18 JAN 2002

Honorable George N. Ahmaogak, Sr.
Mayor
North Slope Borough
P.O. Box 69
Barrow, Alaska 99723

Dear Mayor Ahmaogak:

This letter is to inform you that Alberta Energy Company (AEC) plans to submit an Exploration Plan (EP) for the McCovey prospect in the offshore central Beaufort Sea later next week. Exploration of the McCovey unit will be AEC's first project on the Outer Continental Shelf (OCS) in Alaska.

The project proposal will be substantially different in scope and nature from the McCovey EP proposed by Phillips two years ago. AEC's proposal involves the use of the SDC, a steel drilling caisson that has been successfully used in the Beaufort Sea. AEC is scheduling the mobilization of the SDC for spring 2002 and plans are in place to avoid the bowhead whale subsistence hunt. The drilling program will be scheduled during the winter of 2002/2003 and be completed in advance of spring breakup.

Once the EP is formally submitted to MMS we will distribute the EP for our 30-day regulatory review process. We will be requesting comments from the North Slope Borough (NSB) during that period. Commenting early allows us to incorporate your comments and concerns into our environmental assessment (EA) which will be prepared for the McCovey EP. This also allows us to address your comments and concerns into our actions on the proposed activities.

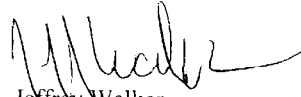
We are aware that the MMS review timeline is short. While our 30-day review is mandated by the OCS Lands Act, the MMS is committed to working with the NSB during and after the 30-day review period. I feel that communication during our process

Honorable George N. Ahmaogak, Sr.
North Slope Borough

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is very important. I would like to arrange a meeting with your office midway through the 30-day review process to identify and address any early concerns that you may have with the project. I will contact your office after the EP has been formally submitted to confirm an appropriate meeting time.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeffrey Walker', with a stylized, flowing script.

Jeffrey Walker
Regional Supervisor
Field Operations

cc: Tom Lohman, North Slope Borough, Anchorage
North Slope Borough, Wildlife Management Dept.



United States Department of the Interior

MINERALS MANAGEMENT SERVICE
Alaska Outer Continental Shelf Region
949 East 36th Avenue, Suite 308
Anchorage, Alaska 99508-4363
18 JAN 2002

Ms. Maggie Ahmaogak
Executive Director
Alaska Eskimo Whaling Commission
1230 Agvik Street
Barrow, AK 99723

Dear Ms. Ahmaogak:

This letter is to provide advance notice that Alberta Energy Company (AEC) plans to submit an Exploration Plan (EP) for the McCovey prospect in the offshore central Beaufort Sea later next week. The McCovey project will be AEC's first project on the Outer Continental Shelf (OCS) in Alaska.

The project proposal will be substantially different in scope and nature from the McCovey EP proposed by Phillips two years ago. AEC's proposal involves the use of the SDC, a steel drilling caisson that has been successfully used in the Beaufort Sea. AEC plans to mobilize and move the SDC from Port Clarence in spring of 2002. AEC is scheduling the transportation of the SDC to avoid the bowhead whale subsistence hunt. The drilling program will take place during the winter of 2002/2003 and be completed in advance of spring breakup.

Once the EP is formally submitted to MMS we will distribute the EP for our 30-day regulatory review process. We will be requesting comments from the AEWC at that time. Commenting early allows us to incorporate your comments and concerns into our environmental assessment (EA) which will be prepared for the McCovey EP. This also allows us to address the concerns that have been submitted.

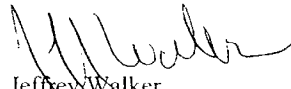
We are aware that the MMS review timeline is short. While our 30-day review is mandated by the OCS Lands Act, the MMS is committed to working with the AEWC

Ms. Maggie Ahmaogak
Alaska Eskimo Whaling Commission

2

during and after our 30-day review period. I feel that communication during our process is very important. I will be in contact with your office once the EP has been formally submitted and, if needed, set up a meeting with you.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey Walker". The signature is fluid and cursive, with the first name "Jeffrey" and last name "Walker" clearly distinguishable.

Jeffrey Walker
Regional Supervisor
Field Operations



United States Department of the Interior

MINERALS MANAGEMENT SERVICE
Alaska Outer Continental Shelf Region
949 East 36th Avenue, Suite 308
Anchorage, Alaska 99508-4363

18 JAN 2002

Dear Mayor:

This letter is to provide advance notice that Alberta Energy Company (AEC) plans to submit an Exploration Plan (EP) for the McCovey prospect in the offshore central Beaufort Sea later next week. The McCovey project will be AEC's first project on the Outer Continental Shelf (OCS) in Alaska.

The project proposal will be substantially different in scope and nature from the McCovey EP proposed by Phillips two years ago. AEC's proposal involves the use of the SDC, a steel drilling caisson that has been successfully used in the Beaufort Sea. AEC plans to mobilize and move the SDC from Port Clarence in spring of 2002. AEC is scheduling the transportation of the SDC to avoid the bowhead whale subsistence hunt. The drilling program will take place during the winter of 2002/2003 and be completed in advance of spring breakup.

Once the EP is formally submitted to MMS we will distribute the EP for our 30-day regulatory review process. We will be requesting comments from the AEWC at that time. Commenting early allows us to incorporate your comments and concerns into our environmental assessment (EA) which will be prepared for the McCovey EP. This also allows us to address the concerns that have been submitted.

We are aware that the MMS review timeline is short. While our 30-day review is mandated by the OCS Lands Act, the MMS is committed to working with the AEWC during and after our 30-day review period. I feel that communication during our process is very important. I will be in contact with your office once the EP has been formally submitted and, if needed, set up a meeting with you.

Sincerely,

Jeffrey Walker
Regional Supervisor
Field Operations

Village Mayors Distribution List
McCovey EP – advance notice

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P.O.Box 629
Barrow, AK 99723

Mr. Martin Oktollik
Mayor
City of Point Hope
P.O. Box 169
Point Hope, AK 99766

Mr. George Tagarook
Mayor
City of Kaktovik
2051 Barter Avenue
Kaktovik, AK 99747

Mr. John Hopson Jr.
Mayor
City of Wainwright
P.O. Box 9
Wainwright, AK 99782

Honorable Eli Nukapigak
Mayor
City of Nuiqsut
2211 Pausanna Street
Nuiqsut, AK 99789



United States Department of the Interior

MINERALS MANAGEMENT SERVICE
Alaska Outer Continental Shelf Region
949 East 36th Avenue, Suite 308
Anchorage, Alaska 99508-4363

18 JAN 2002

To: Federally Recognized Tribes:

As part of our Government to Government consultation efforts I would like to inform you that Alberta Energy Company (AEC) plans to submit an Exploration Plan (EP) for the McCovey prospect in the offshore central Beaufort Sea later next week. The McCovey project will be AEC's first project on the Outer Continental Shelf (OCS) in Alaska.

The project proposal will be substantially different in scope and nature from the McCovey EP proposed by Phillips two years ago. AEC's proposal involves the use of the SDC, a steel drilling caisson that has been successfully used in the Beaufort Sea. AEC plans to mobilize and move the SDC from Port Clarence in spring of 2002. AEC is scheduling the transportation of the SDC to avoid the bowhead whale subsistence hunt. The drilling program will be scheduled during the winter of 2002/2003 and be completed in advance of spring breakup.

Once the EP is formally submitted to MMS we will distribute the EP for our 30-day regulatory review process. We will be requesting comments from you and your constituents. Commenting early allows us to incorporate your comments and concerns into our environmental assessment (EA) which will be prepared for the McCovey EP. This also allows us to address the concerns that have been submitted.

We are aware that the MMS review timeline is short. While our 30-day review is mandated by the OCS Lands Act, the MMS is committed to working with you during and after our 30-day review period. I feel that communication during our process is very important. I will be in contact with your office once the EP has been formally submitted and, if needed, set up a meeting with you.

Sincerely,

Jeffrey Walker
Regional Supervisor
Field Operations

Tribal Entities Distribution List
McCovey EP – advance notice

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Nuiqsut, AK 99723

Mr. Isaac Akootchook
President
Native Village of Kaktovik
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Kaktovik, AK 99747

Ms. Patsy Aamodt
President
Native Village of Barrow
6970 Ahmaogak and Boxer Street
Barrow, AK 99723

Mr. Arnold Brower Jr.
President
Inupiat Community of the Arctic Slope
5031 Boxer Street
Barrow, AK 99723

Mr. Charlie Kinneeveauk
President
Native Village of Point Hope
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Point Hope, AK 99766

Mr. Willard Neakok Sr.
Mayor
Native Village of Point Lay
P.O. Box 59
Point Lay, AK 99759

Ms. June Childress
President
Tribal Council of Wainwright
P.O. Box 143
Wainwright, AK



United States Department of the Interior

MINERALS MANAGEMENT SERVICE
Alaska Outer Continental Shelf Region
949 East 36th Avenue, Suite 300
Anchorage, Alaska 99508-4363



25 FEB 2002

Arnold Brower Jr.
President, ICAS
PO Box 934
Barrow, AK 99723-0934

Dear President Brower:

Minerals Management Service (MMS) would like to express appreciation for your personal attention to the proposed McCovey Exploration Plan (EP). Your participation in the February 19, 2002 teleconference with Tribal representatives was valuable in focusing on important issues and concerns of the Tribal governments. Two concerns that were repeatedly raised related to the integrity of the Steel Drilling Caisson (SDC) and related drilling safety equipment and management of the fuel barge transitioning from the Mackenzie Delta to the SDC and back.

We have also received comments from Mr. Bill Tegoseak (undated, but received by this office on February 21, 2002) on the proposed EP (copy enclosed). Many of the comments reflect and refer back to concerns raised during the review of the first McCovey EP that had proposed use of an ice island. The new EP proposed by AEC Oil and Gas (USA) Inc., has purposely been modified in scope and timing to mitigate concerns raised during the original McCovey EP review. The proposed use of the SDC, timing for mobilization, "silent stacking" of the SDC during the bowhead migration and subsistence hunt, and drilling during the stable solid ice periods have been proposed to minimize potential effects.

Mr. Tegoseak's comments expressed concerns that information is missing from the EP necessary for the ACMP and the MMS review. We believe that the comments reflect some unfamiliarity with the various regulatory processes and their relation to the EP. The MMS would be pleased to meet with the ICAS to review the various regulatory processes, including endangered species consultations that are conducted during the lease sale process and technical reviews conducted by the MMS regarding drilling safety systems and drilling unit stability that occur after and independent to the EP review.

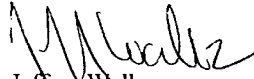


Arnold Brower Jr.
President, ICAS

As discussed during the teleconference, February 19, 2002, the MMS will conduct an inspection of the SDC prior to mobilization to the drill site. These inspections will assure that all safety equipment is installed and working properly and complies with our regulations. The MMS would be pleased to provide your office with a summary of our inspection findings. If the project is approved, AEC is planning to retrofit the SDC starting in May. We expect to conduct an inspection in late May or early June. The MMS is also consulting with the US Coast Guard and AEC, to evaluate options to increase safety and management of the fuel barge transit. We will be pleased to discuss our findings with you as soon as they become available.

The MMS is very sensitive to the concerns raised by the ICAS and other Tribal governments. We are committed to working with the ICAS throughout the McCovey project. If you believe that the information on the inspections and discussions on regulatory processes as described above would be beneficial, please let us know. We value your continued attention to this proposal and thank you for your comments on the merits of the EP as proposed.

Sincerely,



Jeffrey Walker
Regional Supervisor
Field Operations

Cc: George Ahmaogak, NSB Mayor
Bill Tegoscak, ICAS
Maggie Ahmaogak, AEWC
Rex Okakok, NSB Planning
Kevin Bolton, AEC
Mark Schindler, Lynx
Glenn Gray, State of Alaska, DGC

NOVEMBER 14, 2001
AEC McCovey Pre-Application
MEETING ATTENDEES

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—

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Distribution List**Agencies:**

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Bright, Larry - USFWS
Crandall, Bob - AOGCC
Gray, Glenn - DGC
Hanson, Jeanne - NMFS
Haynes, Jim - ADNR, DOG
Holley, Mike - USACE
Ludwig, Stefanie - ADNR, SHPO
Means, Sam - ADNR, DMLW
Milles, Chris - ADNR, DMLW
Nepageak, Thomas - Native Village of Nuiqsut
Nukapigak, Eli - City of Nuiqsut, Mayor's Office
Nukapigak, Issac - Kuukpik Corp.
Okakok, Rex - NSB
Ott, Al - ADF&G
Rockwell, Ted - USEPA
Simmons, Leslie - ADEC, SW
Stambaugh, Sharmon - ADEC, AWQ
Taalak, James - City Council of Nuiqsut
Walker, Jeff - MMS
Westphal, Kellie - ADNR

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Swink Jr., Marvin - Lynx
Taylor, Elliot - Polaris
Teller, Steve - Lynx

McCovey Exploration Plan - Distribution List

as of 30 January 2002

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Mgmt
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local government

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Honorable George N. Ahmaogak Sr.
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City of Nuiqsut
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local interest

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Executive Director
Alaska Eskimo Whaling Commission
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tel no. 907-852-2392 fax no. 907-852-2303

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Mr. Charles Brower
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Mr. Archie Ahkiviana
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public interest

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Appendix 2. Excerpt from Oil Discharge Prevention and Contingency Plan (ODPCP) for Northstar Island

The following page from the Northstar ODPCP describes the procedure for transferring fuel from a barge to a tank on the island.

Fuel flow diagrams, fuel transfer procedures, valving details, and safety precautions for the drill rig are listed in the drilling contractor's SPCC plan. The SPCC plan for each drill rig is kept on site during drilling activities.

Transfer from Barge to Tank

The 2,800-bbl diesel tank and temporary diesel tanks at Northstar are expected to be filled once during the summer months by transfer from a fuel barge. The barge is secured to the dock and connected to the tank via fuel hose. The barge is surrounded by an oil spill containment boom during the entire transfer operation. Each fuel hose connection has a drip pan, and the connection to the tank fill connection is located above a 4-ft x 4-ft x 2-ft (240-gallon) hose drain containment sump located within a larger containment area. In addition, the entire fuel transfer operation is closely monitored by barge and Northstar personnel in accordance with USCG-approved marine fuel transfer operations manuals. Personnel visually monitor the hose, connections, and the tank level throughout the transfer and stay in communication by radio and hand signals to assure that the transfer can be quickly stopped if necessary.

Tank filling is initiated by operators stationed at the barge and at the tank connection. After the operators have connected the fill hose from the barge to the tank and inspected the connections, valve positions are manually changed. The ESD valve on the tank is opened via an electric solenoid operator. The barge supply pump is then started. In most cases, when tank filling is complete, the operator at the tank closes the valve by manual actuation of the control valve and the barge-mounted pump is stopped by the operator at the barge.

The following is based on the NTCL barge being used to fill the Badami tank and may change based on final barge selection for Northstar. The maximum system pressure of the fuel transfer system on the barge is 110 pounds per square inch (psi), and the system has a pressure safety valve set at 100 psi. When it opens, the safety valve releases fuel back into the barge. The transfer hose, which is provided by the barge, shall have a minimum design burst pressure of at least four times the sum of the relief valve setting plus the static head pressure of the transfer system where the hose is installed.

Transfer from Truck to Tank

The 2,800-bbl diesel tank and temporary diesel tanks at Northstar are expected to be filled every two to four months during winter by transfer from a tanker truck. The truck travels to the island via ice roads and connects to the tank via fuel hose. In addition, some fuel transfer may occur from tanker truck in the summer. The tanker trucks would be transported to Northstar via barge. Each fuel hose connection has a drip pan, and the entire transfer is closely monitored by truck and Northstar personnel in accordance with *North Slope Fluid Transfer Guidelines* and the Best Management Practices for Field Operations, Fuel or Chemical Transfer Operations. The hose connection to fill the tank is located above a 4-ft x 4-ft x 2-ft (240-gallon) hose drain containment sump located within a larger containment area. Two personnel visually monitor the hose and tank level throughout the transfer and stay in communication via radio and hand signals to assure that the transfer can be quickly stopped if necessary.

Appendix A

Transfer from Fueling Truck to Equipment

During drilling activities, a tanker truck is used to refuel equipment. These transfer operations are conducted with the fueling truck driver in constant attendance. All fueling hose transfer connections have a drip pan. The fueling truck also carries absorbents, waste containers, and tools to contain and clean up minor drips and spills.